

213/214

150  
QW  
Page 1  
AQ

# Work Order ID 51848

September 4, 2009 11:25:59 AM



Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



\* Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: MF

Date: 09-09-04 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D3905

B

IIN-D119-646

B

100

0.00



DC

0.00

Document Control

Memo

Photocopy bluefile & type labels per PPP D119-646-243  
CHG 001

Scrap


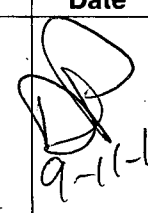

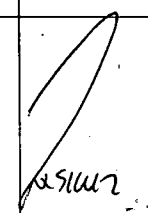

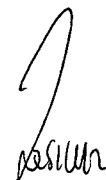


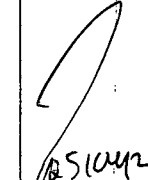
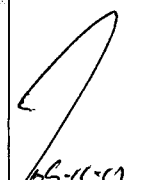

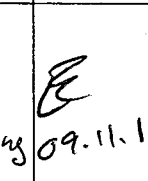
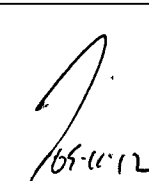
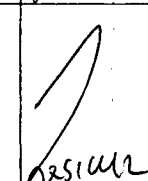
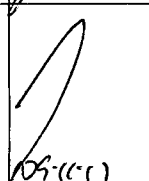
SCRAP

P/O

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D119-646-243 PAR #: \_\_\_\_\_ Fault Category: Skid tubes NCR: Yes No DQA: \_\_\_\_\_ Date: 05.11.24

Resolution: Scrap Disposition: Scrap QA: N/C Closed: \_\_\_\_\_ Date: 05.11.24

NCR: <u>51848</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.10.22	110	AFT BEND CRUSHING, GD < 3.800"		PER DS, GD MUST BE > 3.800". CRUSHING NOT DEFINED IN DWG. SCRAP TUBE. 09.10.22	 9-11-11	 09-11-12	 09-11-12	 09-11-12
9-11-11	110	Same tube. R.C. process		↓ + Salvage web D3885-3	 9-11-11	 09-11-12	 09-11-12	 09-11-12
				B47740 New DT 9538 was made to eliminate crushing & works great	 09.11.11	 09-11-12	 09-11-12	 09-11-12

NOTE: Date & initial all entries

**Work Order ID 51848**

September 4, 2009 11:25:59 AM



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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

110

0.00



Skidtubes

0.00

**Memo**

1- Bend FWD end of tube using Bender 1 and bend prog D3905 FWD per dwg D3905

2- Cut FWD end of tube as per dwg D3905. ✓

3- Cut AFT end of tube as per dwg D3905. ✓

4- Buff out marks left from bending ✓

5- Drill Aft cap pilot hole using DT8149 \*\*\*DO NOT OPEN TO FINISHED SIZE\*\*\*

6- Cleco DT8149 in position and install drill Jig DT 9480 drill X-bolt spacer pilot holes using 3/16" drill7- Spot drill holes to section G using #30 drill. ✓ DT9493

8- Drill FWD cap holes using DT8215. Open FWD &amp; AFT cap holes to 0.208" ✓

9- Drill FWD holes

10- Drill Tow ring hole using DT N/A. Open to finished size. ✓**SCRAP**

9-9-17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 51848**

September 4, 2009 11:25:59 AM

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AD

Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

0.00 09-09-17 ①

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

2) 8 09/09/21

① ①

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) 8 09/09/21

① ①

**SCRAP**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 51848**

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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

150

0.00



Skidtubes

Memo

0.00

1-Open crossbolt spacer holes to finished size \*\*\*DO NOT OPEN SPOT  
DRILLED HOLES IN SECTION G\*\*\*2-Deburr crossbolt spacer holes as per Dwg D3905 and blow out chips from  
inside the tube

&gt; DP 9-9-24

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

⇒ 8/21/24



Quality Control

**SCRAP**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Work Order ID 51848**

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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

170

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Bond web in place as per Dwg D3905 &amp; QSI 015.

A/R ☐ Sikaflex-291 ☐ 11/23/91 ☐Sikaflex expire date: ☐ 2/20/2010 ☐Start: ☐ 3:30 PM ☐ Time: ☐ 9-9-24 ☐Finish: ☐ \_\_\_\_\_ ☐ Time: ☐ \_\_\_\_\_

\*\*\*\*\* (Adhere for 12 hours) \*\*\*\*\*

2--Bend AFT end of tube using CNC Bender 1 and bend prog. D3905 AFT as per dwg D3905. Install drop pins in crossbolt spacer holes to maintain web position.

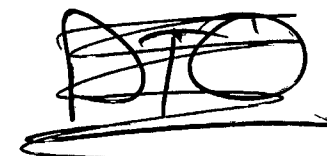
> D P9-9-24

3- Buff out marks left from bending.

4- Open holes of section G (spot drilled holes) to finished size.

\*\*\*\*\*VERIFY DIMENSIONS\*\*\*\*\*

5- Countersink crossbolt spacer holes, and prepare tube for welding, deburr.

**SCRAP**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 51848**

September 4, 2009 11:25:59 AM

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Item ID: D119-646-243

Accept

Setup Start

Revision ID: B

Stop

Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00

Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

190

0.00



Skidtubes

Memo

0.00

Skidtubes

1-Insert crossbolt spacers. Weld as per QSI 004 and Dwg D3905. Remember to back drill each hole before welding the other side. Use aluminum rod A/R ☐ Aluminum Rod ☐

2-Grind cross bolt welds flush as per Dwg D3905. Ensure no pin hole.

3-Counterbore 5/16" x 0.750" deep as per Dwg D3905.

4- Deburr & Scribe batch # on Aft end of tube.

**SCRAP**

**Work Order ID 51848**

September 4, 2009 11:25:59 AM



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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200 	QC5- Inspect part completeness to step on W/O	0.00							
QC Quality Control	Memo	0.00							
210 	QC10- Inspect visual per QSI004- ground welds	0.00							
QC Quality Control	Memo	0.00							
220 	Pressure Wash per QSI005 4.3	0.00							
HandFinish Hand Finishing	Memo	0.00							

**SCRAP**  
Scrap

**Work Order ID 51848**

September 4, 2009 11:25:59 AM



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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230  Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum  Memo	0.00  0.00							
240  QC Quality Control	QC3- Inspect Part Finish  Memo	0.00  0.00							
250  HandFinish Hand Finishing	 Memo 1-Install inserts as per Dwg D3905.	0.00  0.00							

**SCRAP**  
SCRAP

**Work Order ID 51848**

September 4, 2009 11:25:59 AM



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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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260

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

270

0.00



HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads, gaskets and wearplates as per Dwg D3905. Put sikaflex in insert before installing bolts and washers

A/R ☐ ☐ Sikaflex-240/-291 ☐ ☐Sikaflex expire date: ☐ \_\_\_\_\_

2- install plugs assembly as per dwg.

3 -Inspect for foreign objects as per QSI 024

4 -Install Air Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ ☐ Sikaflex-240/-291 ☐ ☐Sikaflex expire date: ☐ \_\_\_\_\_**SCRAP**

**Work Order ID 51848**

September 4, 2009 11:25:59 AM



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Item ID: D119-646-243

Accept



Setup Start



Revision ID: B

Stop



Item Name: Replacement Float Skidtube w/ Training Wearplates

Start Date: 09/08/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 09/25/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
RevPlan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

280



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

285



HandFinish

Hand Finishing

Wing Walk as per dwg QSI005 4.4 Batch \_\_\_\_\_

0.00

Memo

0.00

286



QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

0.00

**SCRAP**  
SCV 14P



**Work Order ID 51848**



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Item ID: D119-646-243 Accept  Setup Start   
Revision ID: B Stop   
Item Name: Replacement Float Skidtube w/ Training Wearplates  
Start Date: 09/08/2009 Start Qty: 1.00  Cust Item ID:  
Required Date: 09/25/2009 Req'd Qty: 1.00  Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start   
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290  Packaging Packaging	Identify as per dwg & Stock Location: _____  Memo	0.00  0.00							
300  QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							

**SCRAP**

Web D3885-3  
B47740 Qty1  
was restocked  
per NCR

09.11.20



# Picklist Print

September 4, 2009 11:25:59 AM

Page 1

Work Order ID: 51848

Parent Item: D119-646-243RevB

Parent Item Name: Replacement Float Skidtube w/ Training Wearplates





Start Date: 09/08/2009



Required Date: 09/25/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2500-1-190RevU/R 		Manufactured	No	B50166		110	Each	0.0000	1.0000			
Ext'n -1' Beam Tube 4"												
D3885-3RevB 		Manufactured	No	B		170	Each	0.0000	1.0000			
Standard Web												
D3903-1RevB 		Manufactured	No			190	Each	0.0000	12.0000			
Spacer												
D3681-1RevA 		Manufactured	No			190	Each	74.0000	8.0000			
Spacer												

		<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
		<u>Location</u>		
		Main Warehouse		
		ST		
		4712		
		48178		
D3683-3RevB 	Purchased	No	250	Each
Insert				
ALS4-1032-130 	Purchased	No	250	Each
Insert				

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	5593	
110511	5593	

I-Rasm

150

OW

AD

159

150

AD

150

150

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 2

Work Order ID: 51848

Parent Item: D119-646-243RevB

Parent Item Name: Replacement Float Skidtube w/ Training Wearplates















Start Date: 09/08/2009

Required Date: 09/25/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2855-3RevB 		Manufactured	No			270	Each	0.0000	2.0000 			
Cap D3672-1RevB 		Manufactured	No			270	Each	688.0000	4.0000 			
Phenolic Washer												
<div> <div>Warehouse</div> <div>Location</div> <div>Main Warehouse</div> <div>ST</div> <div>39275</div> <div>42329</div> <div>47628</div> </div> <div> <div>Loc Qty</div> <div>688</div> <div>19</div> <div>23</div> <div>240</div> </div> <div> <div>Loc Code</div> </div>												
D3846-1RevB 		Manufactured	No			270	Each	0.0000	1.0000 			
GASKET D3846-11RevB 		Manufactured	No			270	Each	0.0000	1.0000 			
GASKET D3847-1RevB 		Manufactured	No			270	Each	0.0000	1.0000 			
WEARPAD D3847-11RevB 		Manufactured	No			270	Each	0.0000	1.0000 			
WEARPAD D3849-047RevB 		Manufactured	No			270	Each	0.0000	1.0000 			
WEARPLATE												

SCRAP

September 4, 2009 11:25:59 AM

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Page 2

1/1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

September 4, 2009 11:25:59 AM

Work Order ID: 51848

Parent Item: D119-646-243RevB

Parent Item Name: Replacement Float Skidtube w/ Training Wearplates





Start Date: 09/08/2009

Required Date: 09/25/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3849-045RevB 		Manufactured	No			270	Each	0.0000	1.0000			
AFT WEARPLATE ASSY, FLOAT GEAR												
D3904-1RevB 		Manufactured	No			270	Each	0.0000	16.0000			
Washer												
D3672-3RevB 		Manufactured	No			270	Each	419.0000	12.0000			
Phenolic Washer												
<div>Warehouse Location</div> <div>Main Warehouse</div> <div>ST</div> <div>419</div> <div>56</div> <div>363</div> <div>48258</div>												
AN3C5A 		Purchased	No			270	Each	646.0000	14.0000			
Bolt												

SCRAP

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
ST	646	
111424	8	
111707	338	
112314	200	
112489	100	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

September 4, 2009 11:25:59 AM

Page 4

Work Order ID: 51848

Parent Item: D119-646-243RevB

Parent Item Name: Replacement Float Skidtube w/ Training Wearplates


Start Date: 09/08/2009

Required Date: 09/25/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C46A  BOLT		Purchased	No			270	Each	114.0000	4.0000			

Warehouse                      Loc Qty                      Loc Code

Location

Main Warehouse

ST

114

106169

5

106176

9

111918

100

AN960C10L

Purchased

No

270

Each

2250.0000

10.0000

washer

Warehouse                      Loc Qty                      Loc Code

Location

OFFSHORE

FG

100

103585

100

Main Warehouse

FP

-44

112116

-44

Main Warehouse

ST

2394

112116

2394

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Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Page 5  
AD

Work Order ID: 51848

Parent Item: D119-646-243RevB

Parent Item Name: Replacement Float Skidtube w/ Training Wearplates


Start Date: 09/08/2009

Required Date: 09/25/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C416  washer		Purchased	No			270	Each	706.0000	12.0000			

Warehouse      Loc Qty      Loc Code  
Location

Main Warehouse

ST

706

100993

706

MS21043-3

Purchased

No

Each

5,324.000 8.0000

Nut

Warehouse      Loc Qty      Loc Code  
Location

OFFSHORE

FG

80

103691

80

Main Warehouse

ST

5244

111819

78

112243

190

112314

4976

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Page 6

Work Order ID: 51848

Parent Item: D119-646-243RevB

Parent Item Name: Replacement Float Skidtube w/ Training Wearplates


Start Date: 09/08/2009

Required Date: 09/25/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS27039C4-08  SCREW		Purchased	No			270	Each	117.0000	12.0000			

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST

117

17831

117

AN3C50A

Purchased

No

270

Each

60.0000

4.0000

Bolt

Warehouse                      Loc Qty                      Loc Code  
Location

Main Warehouse

ST

60

112046

10

112454

50

D3411-3RevREVA

Manufactured

No

270

Each

0.0000

16.0000

WASHER

SCRAP

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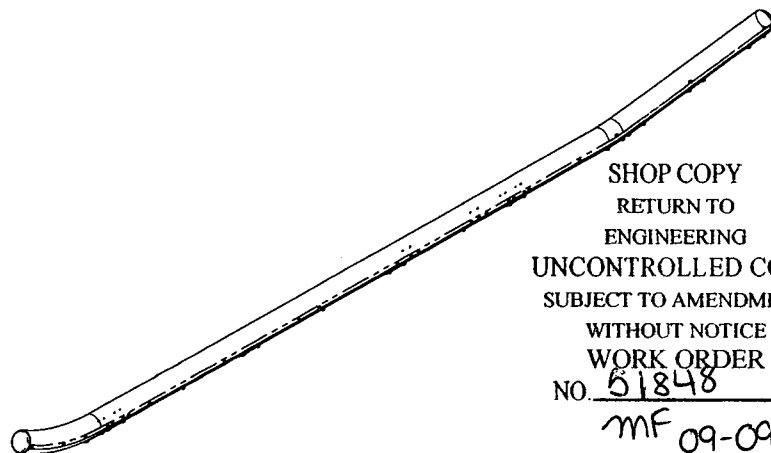
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 51848  
MF 09-09-04

**D3905-041 FLOAT SKIDTUBE ASSY WITH WEARPAD (SHOWN)**  
**D3905-043 FLOAT SKIDTUBE ASSY WITH WEARPLATE (SIMILAR)**  
**D3905-045 FLOAT SKIDTUBE ASSY WITH TRAINING WEARPLATE (SIMILAR)**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3885-3 FLOAT WEB  
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED TO 0.5 ABOVE LOCATION RIDGE PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D3905-041 = 40.7 lbs  
D3905-043 = 47.0 lbs  
D3905-045 = 47.3 lbs
- 8) WELD PER DART QSI 004
- 9) DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 8.5 INCHES  
ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP 0.020" DEEP IN THE BENT  
PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT  
PORTION OF THE TUBE.
- 10) INSERT D3885-3 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE  
WITH SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP
- 11) INSERT D3492-045 PLUG ASSY INTO  $\phi 0.197$  HOLES (BOTH SIDES OF TUBE)
- 12) USE DART DRILL TEMPLATE DT8932 TO LOCATE AND DRILL  $\phi 0.297$  HOLES FOR WEARPLATE INSERTS.  
INSTALL AELS-1032-130 INTO D3905-11 ONLY. INSTALL AN3C5A BOLTS AND NAS1149C0332R WASHERS  
WITH SIKAFLEX-241/-291.

ITEM	QTY -041	QTY -043	QTY -045	P/N	DESCRIPTION
1	X			D3905-041	FLOAT SKIDTUBE ASSY WITH WEARPAD
2		X		D3905-043	FLOAT SKIDTUBE ASSY WITH WEARPLATE
3			X	D3905-045	FLOAT SKIDTUBE ASSY WITH TRAINING WEARPLATE
11	2	2	2	D2855-3	CAP
12	16	16		D3492-045	PLUG ASSY
13	4	4	4	D3672-1	PHENOLIC WASHER
14	8	8	8	D3681-1	SPACER
15	8	1	1	D3846-1	GASKET
16	1	1	1	D3846-11	GASKET
17	8	8	1	D3847-1	WEARPAD
18	1	1	1	D3847-11	WEARPAD
19		1		D3847-043	FWD WEARPLATE ASSY
20		1		D3847-045	CENTER WEARPLATE ASSY
21		1		D3847-049	AFT WEARPLATE ASSY
22			1	D3849-047	FWD WEARPLATE ASSY
23			1	D3849-045	AFT WEARPLATE ASSY
24	1	1	1	D3885-3	FLOAT WEB
25	1	1		D3905-11	FLOAT SKIDTUBE
26			1	D3905-13	FLOAT SKIDTUBE
27	12	12	12	D3903-1	SPACER
28			16	D3904-1	WASHER
29	12	12	12	D3672-3	WASHER
30	12	12	12	D3683-3	INSERT
31			16	D3411-3	WASHER
41	42	42	10	ALS4-1032-130	INSERT
42	46	46	14	AN3C5A	BOLT
43			4	AN3C46A	BOLT
44			4	AN3C50A	BOLT
45	46	46	10	NAS1149C0332R	WASHER (OR AN960C10L)
46	12	12	12	NAS1149C0463R	WASHER (OR AN960C416)
47			8	MS21043-3	NUT
48	12	12	12	MS27039C4-08	SCREW

RELEASED  
09/07/04

B	REVISED PART LIST. ALS4-1032-130 WAS AELS-1032-130 (ZN A6-5, A5-8, C5-7, C3-7, A5-7); ADD DT8932 (ZN A8-1); D2855-3 WAS D2575 (ZN C8-3, C1-2, C8-3, C1-3, C8-4, C1-4); AN3C5A WAS AN3C4A (ZN C7-2, C1-2, C7-3, C1-3, C7-4, C1-4); D3849-047 WAS D3849-041 (ZN B3-4); ADD D3411-3 (ZN B3-4); ADD AN3C50A (ZN B3-4); $\phi 0.313$ WAS $\phi 0.328$ (B2-5, B2-6, C2-7, A8-7 & D7-8); REVISED NOTE iv (ZN A8-7)	RF	09.06.30
A	NEW ISSUE	RF	09.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3905	SHEET 1 OF 8
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	A119 FLOAT SKIDTUBE ASSY	NTS
DATE	09.06.30	COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

SEAL WITH  
SIKAFLEX-241/291

△ D2855-3 CAP

D3846-11  
GASKET

D3847-11  
WEARPAD

△ B

AN3C5A BOLT  
D3672-1 PHENOLIC WASHER  
NAS1149C0332R WASHER  
(1 PER SIDE)

MS27039C4-08 SCREW  
NAS1149C0463R WASHER  
D3672-3 WASHER  
12 PL

BLACK ANTI-SKID TO 0.5  
ABOVE LOCATION RIDGE  
TYP

11  
Ø 0.197  
8 PL PER SIDE  
REF

D3846-1  
GASKET  
8 PL

D3847-1  
WEARPAD  
8 PL

△ B

D2855-3 CAP

SEAL WITH  
SIKAFLEX-241/291

△ B

AN3C5A BOLT  
D3672-1 PHENOLIC WASHER  
NAS1149C0332R WASHER  
(1 PER SIDE)

PLUG INSERTS WITH  
AN3C5A BOLT  
NAS1149C0332R WASHER  
6 PL

**D3905-041 FLOAT SKIDTUBE ASSY WITH WEARPAD**  
(MAKE FROM D3905-11 SKIDTUBE)

RELEASED  
07/07/15

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DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3905	SHEET 2 OF 8
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SEAL WITH  
SIKAFLEX-241/291

D2855-3 CAP

D3846-11  
GASKET

D3846-1  
GASKET

D3847-11  
WEARPAD

AN3C5A BOLT  
D3672-1 PHENOLIC WASHER  
NAS1149C0332R WASHER  
2 PL

MS27039C4-08 SCREW  
NAS1149C0463R WASHER  
D3672-3 WASHER  
12 PL

BLACK ANTI-SKID TO 0.5  
ABOVE LOCATION RIDGE  
TYP

11  
Ø0.197  
8 PL PER SIDE  
REF

D3847-049  
AFT WEARPLATE ASSY

D3847-045  
CENTER WEARPLATE ASSY

D3847-043  
FWD WEARPLATE ASSY

AN3C5A BOLT  
NAS1149C0332R WASHER  
42 PL

D3847-1  
WEARPAD  
8 PL

D2855-3 CAP

SEAL WITH  
SIKAFLEX-241/291

AN3C5A BOLT  
D3672-1 PHENOLIC WASHER  
NAS1149C0332R WASHER  
2 PL

**D3905-043 FLOAT SKIDTUBE ASSY WITH WEARPLATE**  
(MAKE FROM D3905-11 SKIDTUBE)

**RELEASED**  
09/07/15

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3905	SHEET 3 OF 8
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51848

SEAL WITH  
SIKAFLEX-241/291

D2855-3 CAP

D3846-11 GASKET

D3847-11  
WEARPAD

AN3C5A BOLT  
NAS1149C0332R WASHER  
10 PL

AN3C5A BOLT  
D3672-1 PHENOLIC WASHER  
NAS1149C0332R WASHER  
(1 PER SIDE)

MS27039C4-08 SCREW  
NAS1149C0463R WASHER  
D3672-3 WASHER  
12 PL

BLACK ANTI-SKID TO 0.5  
ABOVE LOCATION RIDGE  
TYP

D2855-3 CAP

SEAL WITH  
SIKAFLEX-241/291

AN3C5A BOLT  
D3672-1 PHENOLIC WASHER  
NAS1149C0332R WASHER  
2 PL

D3849-047  
FWD TRAINING WEARPLATE ASSY

AN3C50A BOLT  
D3904-1 WASHER, 2 PL  
D3411-3 WASHER, 4 PL  
MS21043-3 NUT  
4 PL

D3849-045  
AFT TRAINING WEARPLATE ASSY

AN3C46A BOLT  
D3904-1 WASHER, 2 PL  
MS21043-3 NUT  
4 PL

D3846-1  
GASKET

D3847-1  
WEARPAD

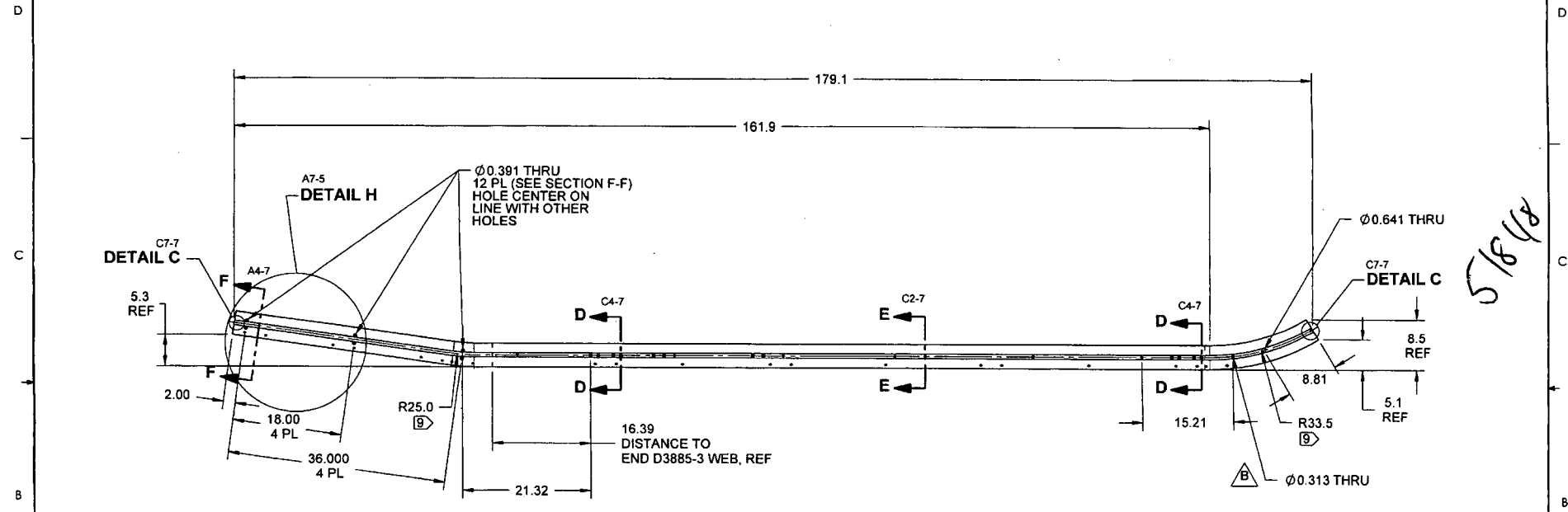
**D3905-045 FLOAT SKIDTUBE ASSY WITH TRAINING WEARPLATE**  
(MAKE FROM D3905-13 SKIDTUBE)

RELEASED  
07/07/15

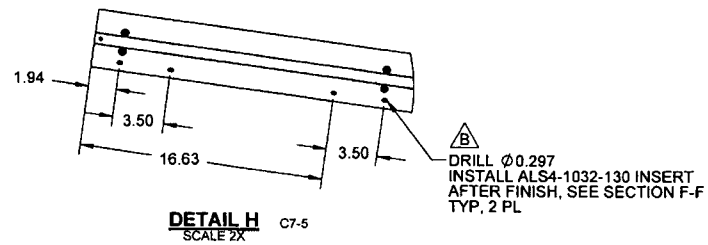
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MFG. APPR.	RF	D3905	SHEET 4 OF 8
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8 7 6 5 4 3 2 1



**D3905-11 FLOAT SKIDTUBE**  
(MAKE FROM D3905-1 TUBE)

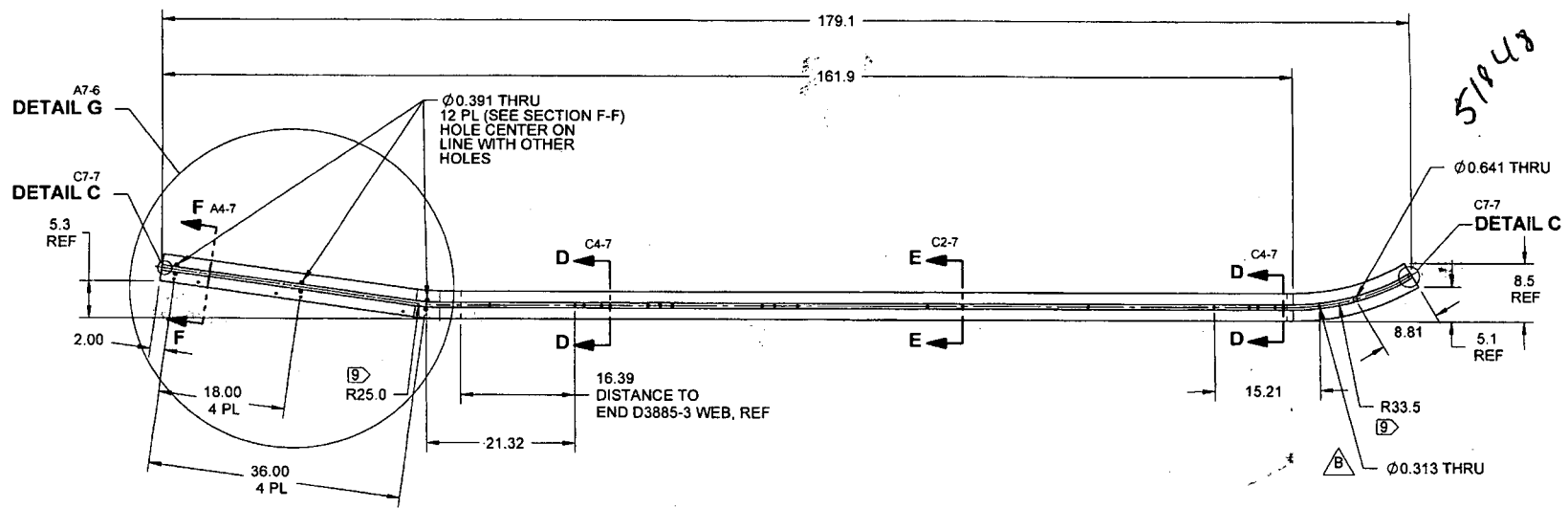


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07/15/18

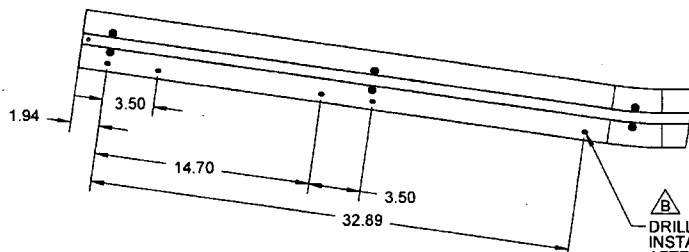
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DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO. <b>D3905</b>	REV. B
MFG. APPR.	RF	SHEET 5 OF 8	
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	<b>A119 FLOAT SKIDTUBE ASSY</b>	NTS
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8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1



**D3905-13 FLOAT SKIDTUBE**  
(MAKE FROM D3905-1 TUBE)



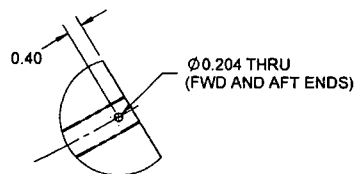
**DETAIL G**  
SCALE 2X C8-6

**RELEASED**  
09/07/15 N/A

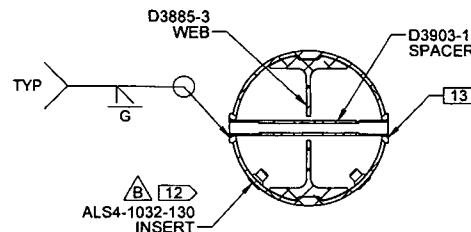
DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO. <b>D3905</b>	REV. B
MFG. APPR.	RF	SHEET 6 OF 8	
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	<b>A119 FLOAT SKIDTUBE ASSY</b>	
DATE	09.06.30	NTS	

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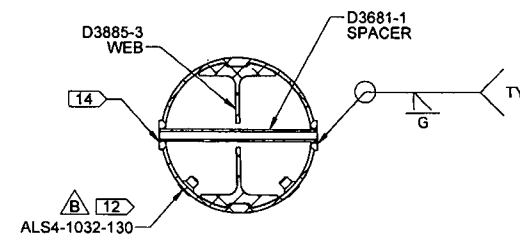
8 7 6 5 4 3 2 1



**DETAIL C**  
SCALE 4X  
C1-5  
C8-5  
C8-6  
C1-6

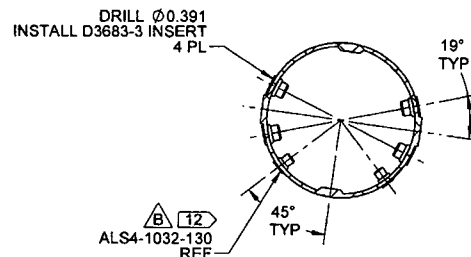


**SECTION D-D**  
SCALE 4X  
(FOR 12 x  $\phi 0.375$  HOLES  
PER SKIDTUBE)  
C5-5  
C2-5  
C6-6  
C2-6



**SECTION E-E**  
SCALE 4X  
(FOR 8 x  $\phi 0.313$  HOLES  
PER SKIDTUBE)  
C4-5  
C4-6  
B

51048



**SECTION F-F**  
SCALE 4X  
C7-6  
C7-5

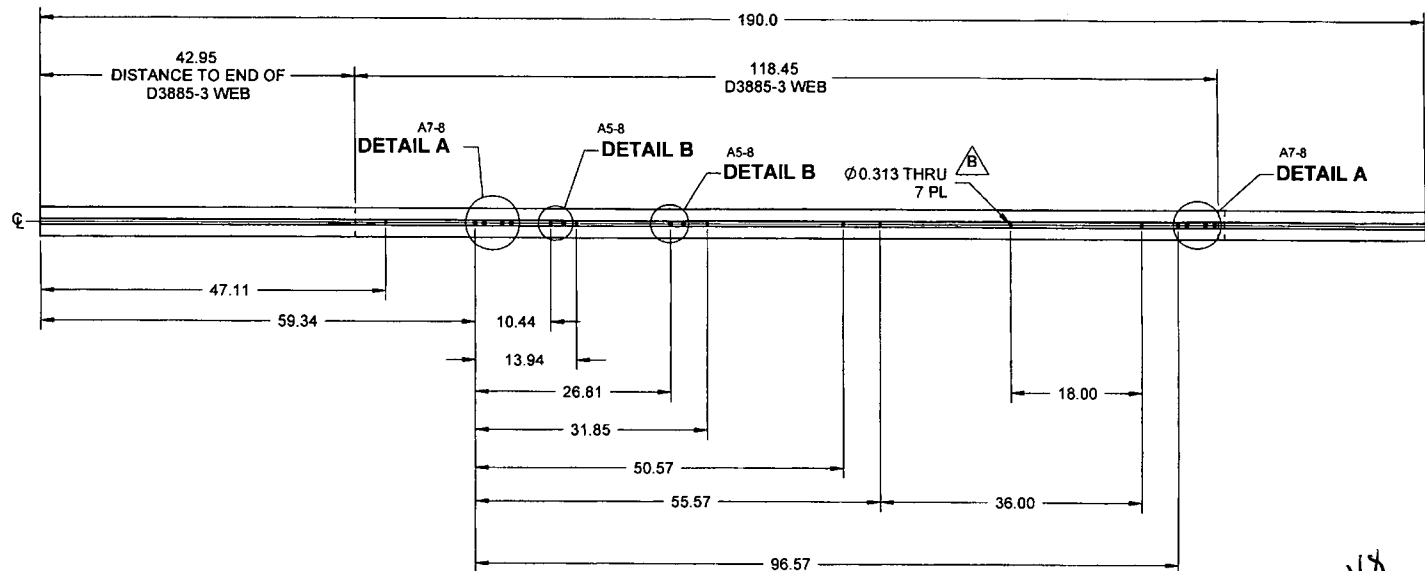
**NOTES:**

- 13) AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR  $\phi 0.375$  HOLES ONLY:  
i) CHAMFER HOLES  $\phi 0.475 \times 45^\circ$  (BOTH SIDES)  
ii) INSERT D3903-1 SPACER  
iii) WELD INTO PLACE AND GRIND FLUSH  
iv) C'BORE TO  $0.313 \times 0.75$  DEEP  
v) DEBURR HOLES

- 14) AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR  $\phi 0.313$  HOLES ONLY:  
vi) CHAMFER HOLES  $\phi 0.354 \times 45^\circ$  OR  $0.050$  DEEP  $\times 45^\circ$  (BOTH SIDES)  
vii) INSERT D3681-1 SPACER  
viii) WELD INTO PLACE AND GRIND FLUSH  
ix) DEBURR HOLES

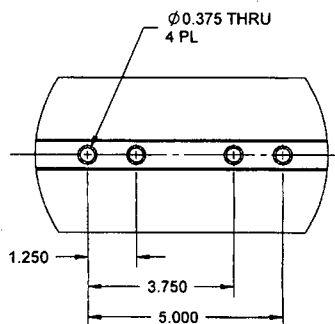
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MFG. APPR.	RF	D3905	SHEET 7 OF 8
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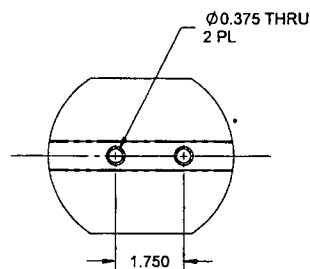


**D3905-1 TUBE**  
(MAKE FROM D2500-1-190 EXTRUSION)

51848



**DETAIL A**  
SCALE 4X  
D6-8  
D2-8



**DETAIL B**  
SCALE 4X  
D5-8  
D4-8

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